

I claim:

1. A method for treating an endocrine disorder, the method
5 comprising the step of intracranial administration of a neurotoxin to a
patient, thereby treating a symptom of an endocrine disorder.
2. The method of claim 1, wherein the neurotoxin is a botulinum
10 toxin.
3. The method of claim 2, wherein the botulinum toxin is selected
from the group consisting of botulinum toxin types A, B, C₁, D, E, F and
15 G.
4. The method of claim 4, wherein the botulinum toxin is botulinum
toxin type A.
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5. The method of claim 3, wherein the botulinum toxin is
administered in an amount of between about 10^{-2} units and about 500
units.
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6. The method of claim 1, wherein the symptom treating effect
persists for between about 1 month and about 5 years.
- 30 7. The method of claim 1, wherein the neurotoxin is administered to
the hypothalamus.

8. The method of claim 7, wherein the neurotoxin is administered to the median eminence region of the hypothalamus.

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9. The method of claim 1, wherein the neurotoxin is administered to the pituitary gland.

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10. The method of claim 10, wherein the neurotoxin is administered to the anterior pituitary.

11. The method of claim 1 wherein the neurotoxin is administered to the posterior pituitary.

12. The method of claim 1, wherein the intracranial administration step comprises the step of implantation of a controlled release botulinum toxin system.

13. A method for treating an endocrine disorder, the method comprising the step of intracranial administration of a therapeutically effective amount of a botulinum toxin to a patient, thereby alleviating a symptom of an endocrine disorder.

14. The method of claim 13, wherein the botulinum toxin is botulinum toxin type A

15. A method for treating an endocrine disorder selected from the group consisting of acromegaly, gigantism, Cushing's disease, hypergonadism and hyperthyroidism, the method comprising the step of
5 intracranial administration of a therapeutically effective amount of a botulinum toxin to a patient, thereby treating an endocrine disorder.

16. The method of claim 15, wherein the botulinum toxin is
10 botulinum toxin type A

17. A method for treating an endocrine disorder, the method comprising the steps of:
15 (a) selecting a neurotoxin with hypothalamic releasing hormone suppressant activity:
(b) choosing a hypothalamic target tissue which influences an endocrine disorder; and;
(c) intracranially administering to the target tissue a
20 therapeutically effective amount of the neurotoxin selected, thereby treating the endocrine disorder.

18. The method of claim 17, wherein the neurotoxin is a botulinum
25 toxin.

19. A method for treating hypergonadism, the method comprising the step of *in vivo* local administration of a therapeutically effective
30 amount of a botulinum toxin type A to a cholinergically influenced hypothalamic tissue to a human patient, thereby alleviating a symptom of hypergonadism in the patient.

20. A contraceptive method comprising the step of intracranial
administration of a botulinum toxin to a patient, thereby reducing an
5 intracranial secretion of a hormone required for gametogenesis.

21. The method of claim 20, wherein the botulinum toxin is
botulinum toxin type A
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22. A method for inhibiting ovulation, the method comprising the
step of intracranial administration of a botulinum toxin to a patient,
thereby reducing an intracranial secretion of a hormone which
15 influences ovulation.

23. The method of claim 22, wherein the botulinum toxin is
botulinum toxin type A
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24. A method for inhibiting sperm production, the method
comprising the step of intracranial administration of a botulinum toxin to
a patient, thereby reducing an intracranial secretion of a hormone which
25 influences sperm production.

25. The method of claim 24, wherein the botulinum toxin is
botulinum toxin type A
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